

=> d 14, 15, 18, 23

L3 ANSWER 14 OF 23 USPATFULL  
AN 97:117740 USPATFULL  
TI Method for raising animals having high concentrations of omega-3 highly unsaturated fatty acids  
IN Barclay, William R., Boulder, CO, United States  
PA OmegaTech Inc., Boulder, CO, United States (U.S. corporation)  
PI US 5698244 971216  
AI US 95-483477 950607 (8)  
RLI Continuation-in-part of Ser. No. US 94-292736, filed on 18 Aug 1994 which is a continuation of Ser. No. US 92-911760, filed on 10 Jul 1992, now patented, Pat. No. US 5340594 which is a continuation of Ser. No. US 90-580778, filed on 11 Sep 1990, now patented, Pat. No. US 5130242 which is a continuation-in-part of Ser. No. US 89-439093, filed on 17 Nov 1989, now abandoned which is a continuation-in-part of Ser. No. US 88-241410, filed on 7 Sep 1988, now abandoned  
DT Utility  
LN.CNT 714  
INCL INCLM: 426/002.000  
INCLS: 426/053.000; 426/635.000; 426/807.000  
NCL NCIM: 426/002.000  
NCLS: 426/053.000; 426/635.000; 426/807.000  
IC [6]  
ICM: A01K067-00  
EXF 426/49; 426/53; 426/2; 426/807; 426/635; 426/61; 435/134; 435/243; 435/946; 119/14.01

L3 ANSWER 15 OF 23 USPATFULL  
AN 96:97066 USPATFULL  
TI Method of stabilizing an .omega.-3 unsaturated fatty acid compound  
IN Miyashita, Kazuo, Hakodate, Japan  
Ota, Toru, Kameda-gun, Japan  
Okazaki, Suguru, Koga, Japan  
Nishikawa, Masazumi, Tsukuba, Japan  
Maruyama, Kazuaki, Tsukuba, Japan  
PA Maruha Corporation, Chiyoda-Ku, Japan (non-U.S. corporation)  
PI US 5567730 961022  
AI US 95-385573 950208 (8)  
RLI Continuation of Ser. No. US 93-88148, filed on 15 Jun 1993, now abandoned  
PRAI JP 92-201437 920728  
DT Utility  
LN.CNT 317  
INCL INCLM: 514/549.000  
INCLS: 514/558.000  
NCL NCIM: 514/549.000  
NCLS: 514/558.000  
IC [6]  
ICM: A61K031-22  
ICS: A61K031-20  
EXF 514/549; 514/558; 424/554; 424/523; 426/602; 426/608  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 18 OF 23 USPATFULL  
AN 92:61740 USPATFULL  
TI Method of producing commercially useful poultry products with increased concentrations of Omega-3 polyunsaturated fatty acids  
IN Ise, Shuntaro, Ise-Foodsbuild 2-1-4, Negishi, Taito-ku, Tokyo, 110, Japan  
PI US 5133963 920728  
AI US 90-631956 901221 (7)  
DT Utility  
LN.CNT 839  
INCL INCLM: 424/094.610  
INCLS: 514/458.000; 514/560.000  
NCL NCIM: 424/094.610  
NCLS: 514/458.000; 514/560.000  
IC [5]  
ICM: A61K037-54  
ICS: A61K031-355; A61K031-20  
EXF 514/560; 514/458; 424/94.61  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SVW

3/26/78

L3 ANSWER 23 OF 23 USPATFULL  
AN :87:39726 USPATFULL  
TI Infant formula  
IN Clandinin, Michael T., Edmonton, Canada  
Chappell, Janet E., Toronto, Canada  
PA The University of Toronto Innovations Foundation, Toronto, Canada  
(non-U.S. corporation)  
PI US 4670285 870602  
AI US 85-711870 850314 (6)  
RLI Continuation-in-part of Ser. No. US 82-405849, filed on 6 Aug  
1982, now abandoned  
DT Utility  
LN.CNT 856  
INCL INCLM: 426/602.000  
INCLS: 426/607.000; 426/613.000; 426/585.000; 426/801.000  
NCL NCLM: 426/602.000  
NCLS: 426/585.000; 426/607.000; 426/613.000; 426/801.000  
IC [4]  
ICM: A23C011-02  
ICS: A23D005-00  
EXF 426/601; 426/613; 426/801; 426/607; 426/602; 426/585  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d kwic 14, 15, 18, 23

L3 ANSWER 14 OF 23 USPATFULL  
CLM What is claimed is:  
3. The method of claim 2, wherein said step of feeding is  
effective to increase the content of **omega-3**  
**highly unsaturated fatty acids** in the  
**milk** of said animal.

L3 ANSWER 15 OF 23 USPATFULL  
SUMM . . . considered to be unstable so far, can be kept under  
stable conditions, and the application of this method allows the .  
**omega.-3 unsaturated fatty**  
**acids** to be used not only for a health drink and  
**milk**, the products shown in the following examples, but  
also for canned foods, bean curd and fish-paste products.

L3 ANSWER 18 OF 23 USPATFULL  
DETD . . . used to feed animals other than poultry, such as, for  
example, cattle and pigs, to produce beef, pork and even  
**milk** with increased concentrations of **Omega-**  
**3 polyunsaturated fatty acids**.

L3 ANSWER 23 OF 23 USPATFULL  
AB . . . certain fatty acids, namely, at least one of a C.sub.20  
or C.sub.22, .**omega.-6** fatty acid and a C.sub.20 or C.sub.22, .  
**omega.-3 fatty acid**, found  
to be present in human **milk**. These fatty acids are  
included in the product in certain defined amounts to avoid  
causing harmful effects on an infant. . . .  
SUMM . . . and/or milk fats to form the lipid component. However,  
these oils do not contain the C.sub.20 and C.sub.22, .**omega.-6** and  
**.omega.-3 fatty acids**  
which are present in human **milk**. Accordingly, these  
dietary preparations do not provide a balance of fatty acids that  
are similar in composition to that of. . . .  
SUMM . . . some 285 mg. per day of C.sub.20 and C.sub.22, .**omega.-6**  
**fatty acids** and some 47.4 mg. per day of C.sub.22, .**omega**  
**.-3 fatty acids**. It was found that  
an adequate intake of mothers own **milk** would provide  
from 90 mg. to 130 mg. of C.sub.20 and C.sub.22, .**omega.-6** fatty  
acids per day and 55-75 mg.. . . .  
SUMM . . . 5 mg. per 100 mls. of human **milk**. Similarly, the lower  
limit to the total concentration of C.sub.20 and C.sub.22, .  
**omega.-3 fatty acids** for all  
of the samples was about 0.5 mg. per 100 mls. of human  
**milk**. These lower limits were used as a starting point for  
determining the ranges of the .**omega.-6** and .**omega.-3 fatty acids**.  
.  
SUMM . . . C.sub.20:4, .**omega.-6** fatty acids, about 5-22 mg. of the  
C.sub.22:6, .**omega.-3** fatty acids, and about 2-8 mg. of the  
C.sub.20:5, .**omega.-3 fatty**  
**acids**. These ranges more closely reflect the biological  
variation in fatty acid concentrations present in human

milk.

=> d all 4-6, 10, 12, 13

L3 ANSWER 4 OF 23 FSTA COPYRIGHT 1998 IFIS  
AN 92(07):Q0002 FSTA FS FSTA  
TI Egg yolk as a source of long-chain polyunsaturated fatty acids in infant feeding.  
AU Simopoulos, A. P.; Salem, N., Jr.  
CS Cent. for Genetics, Nutr. & Health, 2001 S. St., NW, Suite 530, Washington, DC 20009, USA  
SO American Journal of Clinical Nutrition, (1992) 55 (2) 411-414, 27 ref.  
ISSN: 0002-9165.  
DT Journal  
LA English  
AB The fatty acid content of egg yolks from hens fed 4 different feeds were compared as a source of docosahexaenoic acid to supplement infant formula. Greek eggs contain more docosahexaenoic acid (DHA, 22:6.omega.3) and less linoleic acid (LA, 18:2.omega.6) and .alpha.-linolenic acid (LNA, 18:3.omega.3) than do eggs from hens fed large amounts of fish meal or flax. 2-3 g of Greek egg yolk may provide an adequate amount of DHA and arachidonic acid for a preterm neonate. Mean intake of human milk at age 1 month provides 250 mg long-chain .omega.3 fatty acids. This amount can be obtained from <1 yolk of a Greek egg (0.94), >1 yolk of flax (1.6) and fish meal eggs (1.4), or 8.3 yolks of supermarket eggs. With proper manipulation of the hens' diets, eggs could be produced with fatty acid composition similar to that of Greek eggs. (AS(JAT))  
CC Q (Eggs and Egg Products)  
CT Egg yolks; Fatty acids; Infant foods; DOCOSAHEXAENOIC ACID; INFANT FORMULAS; Lipids; Dietetic foods

L3 ANSWER 5 OF 23 FSTA COPYRIGHT 1998 IFIS  
AN 89(07):P0021 FSTA FS FSTA  
TI Modification of milk fat composition by dietary fats containing .omega.-3 and trans fatty acids.  
(In '73rd Annual Meeting, Federation of American Societies for Experimental Biology' [see FSTA (1989) 21 7A73].)  
AU Teter, B. B.; Pax, J.; Sampugna, J.; Keeney, M.; United States of America, Federation of American Societies for Experimental Biology [Symposium]  
CS Dep. of Chem. & Biochem., Univ. of Maryland, College Park, MD 20742, USA  
SO FASEB Journal, (1989) 3 (4) A952.  
ISSN: 0892-6638.  
DT (Abstract)  
LA English  
CC P (Milk and Dairy Products)  
IT Fatty acids; milk fats, fatty acids composition modification of, Title  
IT Fats milk; milk fats, fatty acids composition modification of, Title

L3 ANSWER 6 OF 23 FSTA COPYRIGHT 1998 IFIS  
AN 88(12):P0056 FSTA FS FSTA  
TI [Studies on transfer of .omega.-3 fatty acids into bovine milk fat.]  
Zum Transfer von Omega-3-Fettsauren in das MilCHFett bei Kuhen.  
AU Hagemeister, H.; Precht, D.; Barth, C. A.  
CS Inst. fur Physiol. und Biochem. der Ernährung, Bundesanstalt fur Milchforschung, Kiel, Federal Republic of Germany  
SO Milchwissenschaft, (1987) 43 (3) 153, 155-158, 20 ref.  
ISSN: 0026-3788.  
DT Journal  
LA German SL English  
AB A milk fat enriched with .omega.-3 fatty acids may be of interest for the prevention of cardiovascular disease. There has been controversy over whether and, if so, how much of the long-chain polyunsaturated .omega.-3 fatty acids in marine oils can be utilized by the bovine mammary gland for milk fat synthesis, even if they are protected from biohydrogenation by rumen microflora. 2 lactating cows received infusions of 220-420 g menhaden oil/day for 28 and 43 days, resp. The mean depression of milk fat and protein content was 0.5 and <0.2%, resp.; 35-40% of the infused .omega.-3 fatty acids

were transferred to milk fat. Trans fatty acid content of C18-isomers was never >5% by wt. It is concluded that a surprisingly efficient transfer of long-chain polyunsaturated fatty acids of marine oils into bovine milk fat is possible. (PDW)

CC P (Milk and Dairy Products)

IT Oils fish; milk fats, fish oils and .omega.-  
3 fatty acids in

IT Fatty acids; milk fats, fish oils and .omega.-  
3 fatty acids in

IT Fats milk; milk fats, fish oils and .  
omega.-3 fatty acids in

IT Dairy products

L3 ANSWER 10 OF 23 WPIDS COPYRIGHT 1998 DERWENT INFORMATION LTD

AN 95-109475 [15] WPIDS

DNC C95-049599

TI Food e.g. powdered milk, preserved for long period -  
contains alkali agent added to fat and/or fatty  
acid contg. omega-3 type fatty  
acid in presence of inert gas, adding acid and adding to  
food.

DC D13

PA (BIOX-N) BIOX KK; (SAGA) SAGAMI CHEM RES CENTRE

CYC 1

PI JP 07031416 A 950203 (9515)\* 4 pp A23L001-29

ADT JP 07031416 A JP 93-195537 930713

PRAI JP 93-195537 930713

IC ICM A23L001-29  
ICS A23L001-30

AB JP07031416 A UPAB: 950425  
Alkali agent is added to raw material fat and/or fatty acid contg.  
at least 1 of omega-3 type fatty acid or its derivs. in the presence  
of inert gas to effect saponification and it is neutralised by  
adding acid. The obtd. saponified prod. is added to food material.  
ADVANTAGE - Powdered milk, processed milk or dressing is  
preserved for a long period and easily handled.  
Dwg.0/0

FS CPI

FA AB; GI

MC CPI: D03-B; D03-B07

L3 ANSWER 12 OF 23 WPIDS COPYRIGHT 1998 DERWENT INFORMATION LTD

AN 94-155883 [19] WPIDS

DNC C94-071162

TI Liq preparations for providing nourishing food for patients under  
long term medical care - contain whey-free, fermented milk  
component, honey and opt nutrients such as food fibres,  
omega-3 polyunsaturated fatty  
acids.

DC B04 D13 D16

PA (MEIP) MEIJI MILK PROD CO LTD

CYC 1

PI JP 06098717 A 940412 (9419)\* 6 pp A23L001-30

ADT JP 06098717 A JP 92-272466 920917

PRAI JP 92-272466 920917

IC ICM A23L001-30  
ICS A23C009-13; A23L002-38; A61K037-02

AB JP06098717 A UPAB: 940627  
The compsns. contain a whey-free fermented milk component and honey.  
Pref. the whey-free fermented milk component is 30-35g per 100 kcal  
energy of the compsns. and the protein content in the whey-free  
fermented milk component is 4.0-4.5g per 100 kcal energy of the  
compsns. The content of honey is 5-10g per 100 kcal of energy of the  
compsns., the content of lactose is 0.6-0.9g per kcal of energy of  
the compsn. and the content of omega-3 polyunsaturated fatty acids  
is 70-100 mg per 100 kcal of energy of the compsns. Sodium and  
potassium are 20-80 mg and 45-160 mg, respectively, per 100 kcal of  
energy of the compsns. pH of the compsn. is 3.5-4.5.  
Pref. compsns. are in the form of medicine-type with oral  
admin. and/or in the form of drink-type.  
The whey-free fermented milk component is prepd. by removal of  
whey by centrifugation and/or filtration of lactic acid bacteria  
fermentation milk with opt. addn. of polysaccharides or with opt.  
homogenisation.  
USE/ADVANTAGE - The compsns. used as nourishing food are  
advantageous in that they can effectively furnish to patients under  
long term medical care (claimed). The nutrients include omega-3  
polyunsaturated fatty acids and food fibres.  
In an example, defatted milk (5 t) was fermented with

Lactobacillus bulgaricus and Streptococcus thermophilus, centrifuged, and homogenised to give a whey-free component (992 kg). To this (31g) were added 8g honey, 5.7g dextrin, 1g sucrose, 1.4 g water-soluble food fibre, 2.8g omega-3 polyunsaturated fatty acid-rich oil, and vitamins and minerals to give a preparation.

Dwg.0/0

FS CPI  
FA AB  
MC CPI: B04-B04K; B04-D01; D03-B01; D03-H01G; D03-H01T2

L3 ANSWER 13 OF 23 WPIDS COPYRIGHT 1998 DERWENT INFORMATION LTD

AN 87-170126 [24] WPIDS

DNC C87-070867

TI Infant feeding formula - contg. 20C and 22C omega-6 or omega-3 fatty acids at concns. corresp. to human milk.

DC D13

IN CHAPPELL, J E; CLANDININ, M T

PA (UTOR) UNIV TORONTO

CYC 2

PI US 4670285 A 870602 (8724)\* 8 pp

CA 1244708 A 881115 (8850)

ADT US 4670285 A US 85-711870 850314

PRAI US 82-405849 820806; US 85-711870 850314

IC A23C011-02; A23D005-00

AB US 4670285 A UPAB: 930922

A formula suitable for feeding infants comprises sugar, non-fat milk, water and an edible fat, the fat comprising at least one of (a) a fatty acid source contg. at least one of 20C omega-6 fatty acids and 22C omega-6 fatty acids, where the total of 20C omega-6 and 22C omega-6 fatty acids is 5-100 mg per 100 ml of the formula and (b) a fatty acid source contg. at least one 20C omega-3 fatty acids and 22C omega-3 fatty acids, where the total of the 20C omega-3 and 22C omega-3 fatty acids is 0.5-60 mg per 100 ml of the formula, where the fatty acid sources are egg yolk lipid or fish oil.

To achieve the fatty acid compsns. the edible fat prod. is pref. a blend of egg yolk lipid (75-95 pts.wt.) and coconut oil and soybean oil (5-25 pts.wt.). Alternatively the fatty acids may be derived from phospholipids of red blood cell membranes. An alternative prefd. source of the 20C and 22C omega-6 and omega-3 fatty acids is fish or marine oil. The formula pref. also contains per 100 ml, 200-500mg of prostaglandin E2, 25-50 mg of 6-keto prostaglandin F1 alpha and 25-100 mg of prostaglandin F2 alpha.

USE/ADVANTAGE - The formula is suitable for feeding infants and has a fatty acid compsn. similar to human milk. The formula is a stable liquid and has a suitable shelf life.

0/0

FS CPI  
FA AB  
MC CPI: D03-B11